The integrated circuit (10) has a substrate and a memory with a first memory unit (30) containing organic material. The first memory unit (30) has a first (26) and a second electrode (28), which are in the non-programmed state electrically connected by an interconnection (27). On programming, the interconnection (27) is at least partially broken in that it is locally heated. This heating can be effected electrically and optically. By preference the first memory unit (30) is integrated in a first layer (6) of organic material, which also has a first electrode (25) of the integrated circuit (10). The integrated circuit (10) can be used in a transponder which is electrically programmable. In the method of programming, the local heating is effected electrically, by applying a voltage across the first memory unit (30).

Fig. 1

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